MYTILINEOS

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Mytilineos is one of the largest industrial companies in Greece, with activities in numerous sectors (*including Metallurgy, Electricity generation and supply, Gas trading, and EPC works*). One of our key lines of business concerns the operation of the largest vertically integrated alumina/aluminium production facility in Europe, where roughly 185,000 tonnes of aluminium are produced annually.

Aluminium will play a key role in enabling the transition towards a carbon neutral society. Due to its properties (*lightweight, formability, recyclability, conductivity etc.*), aluminium is used in numerous low-carbon and energy-efficient products (*including RES units, transmission cables, energy-efficient buildings and lightweight mobility*). The energy savings achieved during the use phase can actually offset the energy required to produce the aluminium in the first place.

The primary aluminium production process is also fully electrified, in line with the Commission's 2050 Long-Term Strategy, which stresses the importance of electrification as a key enabler of the transition towards climate neutrality. However, this also means that electricity costs play a particularly important role in determining the competitiveness of aluminium smelters. As indicated in the European Commission's latest report on the "*Composition and Drivers of Energy Prices and Costs*"[1], the average share of electricity costs in total production costs for primary aluminium smelters in the EU exceeds 40%. Therefore, any increase in the cost of electricity (*e.g. from indirect EU ETS costs*) deteriorates the competitiveness of aluminium smelters. This reality is compounded by the fact that aluminium prices are set in global markets (*most notably the London Metal Exchange*), meaning that cost increases cannot be passed on to consumers without losing significant market share to producers outside Europe, who do not face the same costs (i.e. aluminium companies are 'price takers'). Given that aluminium production outside Europe tends to have a much higher carbon footprint than the equivalent European production[2], this results in carbon leakage. Indeed, **carbon leakage in the aluminium sector is already happening**. Apart from the closure of numerous EU-based smelters in recent years (*the EU has lost roughly 36% of its primary smelting capacity since 2008, due to plant closures and curtailments*), investment in new capacity aimed at covering the increasing global demand for aluminium is happening in other parts of the world instead of the EU (*investment leakage*). As a result, the RAG ratings included on pages 33-36 of the consultant's report that accompanied the proposal for the updated ETS Guidelines should undoubtedly consider aluminium as a 'high risk' sector across all scenarios.

[1] https://op.europa.eu/en/publication-detail/-/publication/424dac0a-ec77-11e8-b690-01aa75ed71a1/language-en (page 6)

[2] China accounts for almost 60% of global primary aluminium production, and 90% of this Chinese production is based on coal-fired electricity generation: http://www.world-aluminium.org/statistics/primary-aluminium-smelting-power-consumption/

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In view of the above, the updated Guidelines will be absolutely crucial for preserving the competitiveness of the European aluminium sector, enabling it to continue contributing towards the climate transition. As mentioned in our responses during the previous rounds of consultation, the effectiveness of the current Guidelines was limited by the system of degressive compensation, which was based on horizontal maximum aid intensities. This approach did not reflect the fact that the impact of indirect costs (*and therefore the carbon leakage risk*) varies significantly from sector to sector. Indeed, the key factor for effectively preventing carbon leakage is not the percentage of indirect costs that is compensated, but rather the cost that eligible undertakings remain exposed to (after compensation) in absolute terms (€/MWh), and how this affects the competitiveness or even the viability of a sector/undertaking.

In light of the above, we welcome the Commission's proposal to adopt a more targeted and proportional approach to indirect cost compensation, by foreseeing the possibility of limiting the indirect cost burden to a specific percentage of the undertaking's gross value added (GVA). As correctly mentioned in the explanatory note accompanying the draft Guidelines:

"*This new possibility is aimed at limiting the exposure to indirect ETS cost of certain sectors for whom these costs, even after applying the 75% compensation, can make up a disproportionate amount of their GVA*"

This will ensure that the aid received by each beneficiary will be proportionate to the impact that indirect costs actually have on their competitiveness and economic viability. In turn, this ensures the achievement of two of the key objectives set out by the Commission in the evaluation roadmap for the revision of the ETS State Aid Guidelines, namely i) ensuring the protection of the undertakings that are most vulnerable to the risk of carbon leakage, and ii) avoiding the risk of overcompensation, by ensuring that higher levels of compensation are only available for undertakings that genuinely require them (*due to their electro-intensity*).

However, in order to ensure that the aid is actually targeted at the companies that need it most (*i.e. those who are particularly exposed to indirect EU ETS costs*), thus ensuring optimal allocation of state-aid budget, the GVA limitation should be applied at the undertaking level (rather than applying it at the sector level, as per the current proposal). In particular, the GVA limitation should only be available for specific undertakings which: (i) operate within an eligible sector, and (ii) have an electro-intensity of at least 20%. Furthermore, the limitation should be set at **0.5% GVA**, following the tried and tested methodology that is already foreseen in the Guidelines on State aid for environmental protection and energy 2014-2020 (*EEAG - 2014/C 200/01, Section 3.7.2*) for alleviation from RES levies. For many Member-States, this would also minimize the administrative burden, in case the relevant provisions of the EEAG guidelines are also applied; moreover, in Greece, the competent authority in charge of the implementation of the EEAG is also responsible for the compensation of eligible undertakings under the ETS Guidelines.

Furthermore, the Guidelines should clarify that in the case of an integrated company, the calculation of the GVA should be based solely on the operations of the undertaking that relate to the specific eligible sector for which aid is being granted. Otherwise, in the case of an integrated undertaking with operations across multiple sectors, the calculated GVA would be affected by the undertaking's (completely unrelated, for the purpose of the aid in question) operations in other sectors. This leads to the risk of artificially inflating the calculated GVA, meaning that the required level of protection would not be ensured (whereas this would also lead to a misrepresentation of the applicable electro-intensity, which is activity specific), since the remaining exposure would not be proportionate to the undertaking's operations in the specific eligible sector.

Elsewhere, the explanatory note accompanying the draft Guidelines (p.3) correctly notes that the mid-term update of the electricity consumption efficiency benchmark "*is better suited to capture any potential efficiency gains in the sectors concerned than a per-se reduction of the aid intensity*". Indeed, given that electricity costs constitute such a large percentage of the cost of producing primary aluminium, smelters are always incentivized to maximise their energy efficiency, regardless of indirect ETS costs and compensation. Any failure to maximize its energy efficiency would inevitably lead to the erosion of a primary aluminium producer's competitiveness.

However, in order to accurately reflect the efficiency gains within the sector, the electricity benchmarks (*both initially and after the mid-term update*) must be based on actual data. In this regard, the proposal contained in recital 13 of the draft Guidelines, whereby the update of the electricity consumption efficiency benchmark would be consistent with Article 10a(2) of the EU ETS Directive, is highly problematic. This would link the benchmark to an arbitrary yearly reduction rate, which would not reflect the actual level of improvement. Historical efficiency improvements cannot be extrapolated so as to accurately predict the improvements that may be achieved in the future. Given the importance of energy efficiency to determining the competitiveness of an aluminium smelter, most of the efficiency improvements that are currently possible have already been implemented. Therefore, the efficiency of European smelters is nearing its (*current*) technical limit, at least until the next big technological breakthrough. Future efficiency improvements are likely to come in larger 'steps' (*achieved due to technological breakthroughs*), rather than the gradual efficiency improvement that the Article 10a(2) formula implies. Linking the benchmarks to the Article 10a(2) formula will likely lead to an over-estimation of the actual efficiency improvements, reducing the compensation that can be granted and thereby increasing the risk of carbon leakage. This is also inconsistent with the change of approach with regard to activity levels, which the draft Guidelines (correctly) propose should be based on each installation's actual production from year to year (*as opposed to the 'baseline output' used in the current Guidelines, which is based on historical data*) in order to ensure an increased level of accuracy. Instead, the benchmark updates should be based on actual data (*continuing the methodology that was used for the current Guidelines, i.e. data collection at the Prodcom 8 level*). Assuming that the mid-term update of the electricity benchmark is also based on real data, this will ensure that the benchmark remains accurate throughout Phase 4.

Finally, we support the introduction of some form of conditionality in order to incentivize beneficiaries to reduce their carbon footprint, thereby ensuring that the Guidelines will be consistent with the European Green Deal as well as the EU's broader climate goals. However, the conditionality must be reasonable and proportionate in order to ensure that it does not undermine the main purpose of the compensation, i.e. preventing carbon leakage.

Regarding conditionality option (a):

The obligation to conduct energy audits and to implement the recommendations of the audit report (*assuming that the costs of the relevant investments are proportionate*) is a reasonable and acceptable form of conditionality.

Regarding conditionality option (b):

Reducing the carbon footprint of the undertaking's electricity consumption (*e.g. through a carbon-free PPA*) could also be a reasonable form of conditionality. However, the Guidelines should not cite specific examples with regard to how this could be achieved, given that the

relevant opportunities vary greatly from Member State to Member State, and from undertaking to undertaking.

Firstly, the volumes of electricity consumed by electro-intensive industries are enormous (*even a relatively small primary aluminium smelter consumes 2 or 3 TWh of electricity annually*). Therefore, installing "*an on-site renewable energy generation facility (covering at least 50% of their electricity needs)*" is simply impossible, due to a lack of available on-site space. Installing enough renewable generation capacity to cover 50% of an aluminium smelter's demand requires massive stretches of land, therefore the issue of where these renewable units are installed should be left open.

Signing a carbon-free PPA is more feasible. However, RES sourcing remains a massive challenge for aluminium smelters. The requirement for massive volumes of baseload/uninterrupted electricity makes it very difficult to cover this demand using carbon-free generation, which tends to be much more variable and unpredictable (particularly in the case of wind and solar production). These difficulties were outlined in a report recently published by the European Commission *("Competitiveness of corporate sourcing of renewable energy, Part 2 of the Study on the competitiveness of the renewable energy sector", ENER/C2/2016-501*[3]), which highlights the importance of investment support to foster corporate investments in renewable technologies. The "*Masterplan for a Competitive Transformation of EU Energy-intensive Industries*"[4] recently published by the High-Level Group on Energy-intensive Industries (*which was mentioned in the recent Communication on The European Green Deal*) also identified "firming costs" (*i.e. the cost of changing a variable electricity production profile to a flat industrial consumption profile*) as a major barrier to the further uptake of industrial RES sourcing. The issue is also described in detail in a report that was recently issued by the Institute for European Studies at the Vrije Universiteit Brussel (VUB), titled "*Metals for a Climate Neutral Europe*"[5].

Indeed, to date, the only cases of RES sourcing by aluminium smelters in Europe are in the Nordics, where the abundant hydropower can be used to cover the plant's consumption in a competitive and low-carbon manner.

In other regions of Europe, requiring an aluminium smelter to sign a carbon-free PPA that covers 50% of its consumption would lead to massive 'firming costs', destroying its competitiveness and leading to carbon leakage (*i.e. undermining the basic purpose of the compensation*). Therefore, the Guidelines should not reference a specific percentage of the consumption that should be covered by the PPA. In the meantime, the Commission should continue to work with electro-intensive industries on the various promising initiatives that could lead to the possibility for such consumers to cover larger percentages of their consumption using carbon-free electricity in the future (*e.g. the development of markets for low-carbon goods, the development of multi-seller PPAs, aggregation of balancing costs for energy-intensive industries, long-term capacity booking at interconnections, as well as investment support under initiatives such as the Innovation Fund*). Solving these problems is also the only way to entice other industries to increase their levels of electrification, which will be necessary in order to achieve climate neutrality by 2050.

[3] https://op.europa.eu/en/publication-detail/-/publication/5ab1ada3-c48c-11e9-9d01-01aa75ed71a1
[4] https://ec.europa.eu/docsroom/documents/38403/attachments/1/translations/en/renditions/native
[5] https://www.ies.be/files/Metals_for_a_Climate_Neutral_Europe.pdf

Regarding conditionality option (c):

The objective of the Guidelines is to reduce the risk of carbon leakage caused by indirect EU ETS costs. However, option (c) effectively reduces the compensation by 80% without reducing beneficiaries' exposure to indirect costs, and is therefore incompatible with the stated objective (*indeed, it would likely have the opposite effect i.e. increasing the risk of carbon leakage*).

The proposed conditionality (*requiring the beneficiary to re-invest 80% of the aid*) essentially implies that the beneficiaries will receive some sort of 'positive' subsidy, when in reality the purpose of indirect cost compensation is to reduce electro-intensive consumers' exposure to an **actual** cost that burdens them but not their international competitors. By requiring the beneficiary to re-invest 80% of the aid, the exposure to these costs is only reduced by 20%, and therefore the risk of carbon leakage is not avoided (*as mandated by the ETS Directive*).

Furthermore, the investments proposed under option (c) (*projects that lead to substantial reductions of the installation's greenhouse gas emissions*) would only lead to a reduction of **direct** emissions, without reducing the indirect costs passed on to these consumers through electricity prices. Therefore, the risk of carbon leakage would not be reduced. Indeed, given that many of the eligible sectors are characterized by high levels of electrification, direct emissions attributable to these sectors tend to be relatively low. As a result, this limits the scope for investments aimed at lowering direct emissions, meaning that it might not even be impossible to invest 80% of the aid in such projects.

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